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- (2) Blend into and complement the drainage pattern of the surrounding terrain.
- (b) Performance standards. Where thin overburden occurs within the permit area, the permittee at a minimum shall:
- (1) Use all spoil and other waste materials available from the entire permit area to attain the lowest practicable grade, but not more than the angle of repose; and
- (2) Meet the requirements of §§816.102(a)(2) through (j) of this part.

[56 FR 65635, Dec. 17, 1991]

§816.105 Backfilling and grading: Thick overburden.

- (a) Definition. Thick overburden means more than sufficient spoil and other waste materials available from the entire permit area to restore the disturbed area to its approximate original contour. More than sufficient spoil and other waste materials occur where the overburden thickness times the swell factor exceeds the combined thickness of the overburden and coal bed prior to removing the coal, so that after backfilling and grading the surface configuration of the reclaimed area would not:
- (1) Closely resemble the surface configuration of the land prior to mining; or
- (2) Blend into and complement the drainage pattern of the surrounding terrain.
- (b) Performance standards. Where thick overburden occurs within the permit area, the permittee at a minimum shall:
- (1) Restore the approximate original contour and then use the remaining spoil and other waste materials to attain the lowest practicable grade, but not more than the angle of repose;
- (2) Meet the requirements of §§816. 102(a)(2) through (j) of this part; and
- (3) Dispose of any excess spoil in accordance with §§ 816.71 through 816.74 of this part.

[56 FR 65635, Dec. 17, 1991]

§816.106 Backfilling and grading: Previously mined areas.

(a) Remining operations on previously mined areas that contain a pre-

- existing highwall shall comply with the requirements of §§816.102 through 816.107 of this chapter, except as provided in this section.
- (b) The requirements of §816.102(a) (1) and (2) requiring the elimination of highwalls shall not apply to remining opertions where the volume of all reasonably available spoil is demonstrated in writing to the regulatory authority to be insufficient to completely backfill the reaffected or enlarged highwall. The highwall shall be eliminated to the maximum extent technically practical in accordance with the following criteria:
- (1) All spoil generated by the remining operation and any other reasonably available spoil shall be used to backfill the area. Reasonably available spoil in the immediate vicinity of the remining operation shall be included within the permit area.
- (2) The backfill shall be graded to a slope which is compatible with the approved postmining land use and which provides adequate drainage and long-term stability.
- (3) Any highwall remnant shall be stable and not pose a hazard to the public health and safety or to the environment. The operator shall demonstrate, to the satisfaction of the regulatory authority, that the highwall remnant is stable.
- (4) Spoil placed on the outslope during previous mining operations shall not be disturbed if such disturbances will cause instability of the remaining spoil or otherwise increase the hazard to the public health and safety or to the environment.

 $[48\ FR\ 41734,\ Sept.\ 16,\ 1983,\ as\ amended\ at\ 51\ FR\ 41737,\ Nov.\ 18,\ 1986]$

§816.107 Backfilling and grading: Steep slopes.

(a) Surface mining activities on steep slopes shall be conducted so as to meet the requirements of §§816.102–816.106, and the requirements of this section except where mining is conducted on flat or gently rolling terrain with an occasional steep slope through which the mining proceeds and leaves a plain or predominantly flat area or where operations are conducted in accordance with part 824 of this chapter.

- (b) The following materials shall not be placed on the downslope:
 - (1) Spoil.
 - (2) Waste materials of any type.
- (3) Debris, including that from clearing and grubbing.
 - (4) Abandoned or disabled equipment.
- (c) Land above the highwall shall not be disturbed unless the regulatory authority finds that this disturbance will facilitate compliance with the environmental protection standards of this subchapter and the disturbance is limited to that necessary to facilitate compliance.
- (d) Woody materials shall not be buried in the backfilled area unless the regulatory authority determines that the proposed method for placing woody material within the backfill will not deteriorate the stable condition of the backfilled area.

[48 FR 23369, May 24, 1983, as amended at 48 FR 41734, Sept. 16, 1983]

§816.111 Revegetation: General requirements.

- (a) The permittee shall establish on regraded areas and on all other disturbed areas except water areas and surface areas of roads that are approved as part of the postmining land use, a vegetative cover that is in accordance with the approved permit and reclamation plan and that is—
 - (1) Diverse, effective, and permanent;
- (2) Comprised of species native to the area, or of introduced species where desirable and necessary to achieve the approved postmining land use and approved by the regulatory authority:
- (3) At least equal in extent of cover to the natural vegetation of the area; and
- (4) Capable of stabilizing the soil surface from erosion.
- (b) The reestablished plant species shall—
- (1) Be compatible with the approved postmining land use;
- (2) Have the same seasonal characteristics of growth as the original vegetation:
- (3) Be capable of self-regeneration and plant succession;
- (4) Be compatible with the plant and animal species of the area; and
- (5) Meet the requirements of applicable State and Federal seed, poisonous

- and noxious plant, and introduced species laws or regulations.
- (c) The regulatory authority may grant exception to the requirements of paragraphs (b) (2) and (3) of this section when the species are necessary to achieve a quick-growing, temporary, stabilizing cover, and measures to establish permanent vegetation are included in the approved permit and reclamation plan.
- (d) When the regulatory authority approves a cropland postmining land use, the regulatory authority may grant exception to the requirements of paragraphs (a) (1), (3), (b) (2), and (3) of this section. The requirements of part 823 of this chapter apply to areas identified as prime farmland.

[48 FR 40160, Sept. 2, 1983]

§816.113 Revegetation: Timing

Disturbed areas shall be planted during the first normal period for favorable planting conditions after replacement of the plant-growth medium. The normal period for favorable planting is that planting time generally accepted locally for the type of plant materials selected.

[48 FR 40160, Sept. 2, 1983]

§816.114 Revegetation: Mulching and other soil stabilizing practices.

Suitable mulch and other soil stabilizing practices shall be used on all areas that have been regraded and covered by topsoil or topsoil substitutes. The regulatory authority may waive this requirement if seasonal, soil, or slope factors result in a condition where mulch and other soil stabilizing practices are not necessary to control erosion and to promptly establish an effective vegetative cover.

[48 FR 40160, Sept. 2, 1983]

§816.116 Revegetation: Standards for success.

- (a) Success of revegetation shall be judged on the effectiveness of the vegetation for the approved postmining land use, the extent of cover compared to the cover occurring in natural vegetation of the area, and the general requirements of §816.111.
- (1) Standards for success and statistically valid sampling techniques for